Sample Procedure for Corn Fields

ESE will utilize a modified program of EPA's ISM recommendation. We will utilize the figures 2 and 3 provided as the basis of the sample protocol. Each circle pivot corn field which conditioned mash was applied for Agronomic Value in a systematic approach will be considered. Two corn fields from application Group 1 and one corn field from application Group 2 will be selected based on criteria EPA requested; (1) Highest application rate, (2) Recent Application. All of the conditioned mash application was completed August 2021. Corn Field 1 (NW 32-16-17) in application Group 1 was selected due to the two applications of conditioned mash. One application in February 2020 at 6.46 tons/acre and a 2nd application in January 2021 at 10 tons/acre. Corn Field 2 (SW 32-16-37) in application Group 1 was selected due to the highest most recent application, approximately 12.2 tons/acre applied in January 2021. Corn Field 3 (SE 36-17-37) in application Group 2 was selected due to an application of 6.35 tons/acre in January 2020. (See Table 3) The two Group 1 fields are 92 acre circle pivot each. The Group 2 corn field is 160 acres. The three corn fields will be sampled in the same process for consistency. Each corn field will be placed into a 6 x 6 grid pattern overlay. The circle pivot corn fields will be sampled in each complete grid (square portion) allowing for 20 cores, aliquots, near the center of each grid square. Each location will be recorded via GPS.

(See Figure 2, Figure 3 and Map)

The field edges whether circle pivot or square corn field could have a slight variation as to the less mash applied due to stopping and restarting the spreader equipment. The field edges will not be sampled to insure sample aliquots collected from the most uniform area of the corn field. Each core shall be 30" in depth divided in 10' segments. 0-10", 10"-20", 20"-30". Each core aliquots segment will be placed into a clean plastic 5 gallon bucket with a lid for mixing then sub-sampling. The large composite from 0-10" will be sub-sampled into 3 samples for analysis. One for EPA, one as primary, one as duplicate. The 0-6" composite shall serve as the third of upper depth sampling. The large composite from 10"-20" and 20"-30" depths will be sub-sampled into four samples, one for EPA, one for ESE, plus two replicates. One additional aliquot will be collected from each grid square, approximately 100' from the core location. These 20 aliquots will be collected 0-6" then placed into a clean 5 gallon bucket with a lid for mixing then sub-sampling for one composite for EPA, and one composite for ESE. Once the aliquot collection is completed in one field the combined aliquots will be thoroughly mixed and sub-sampled. Once sub-samples are containerized, sealed and labeled they will be placed in a cooler for preservation until shipment via 2nd Day Delivery to the laboratory. Each composite sample will be labeled with the field, depth, name and date.

FIGURE 2
GROUP 1

Sampling at 20 increments per Decision Units (Dus)

Group	# of Fields	# of acres	# of field to sample
1	9	794	2
2	5	451	1
3	7	786	0

Objective: Obtain 20 increments per DU per depth level

- Sample 6" surface and 2 centimeter (cm) soil core for random increments
- First surface increment is determined randomly, and subsequent increments are collected in the same relative location within each grid. This action is repeated for 20 soil core samples.
  - 20 surface increments at 0 -6"
  - 20 soil core increments at 0 -30"
- After collecting 20 surface increments and 10 soil cores, the soil cores will be subsampled and separated by depth.
- Each set of 20 samples will be composited separately into a three main samples from which 3 representative subsamples will be sent for analysis.
  - 3 subsamples at surface"
  - 3 subsamples at 10-20"
  - 3 subsamples at 20-30"

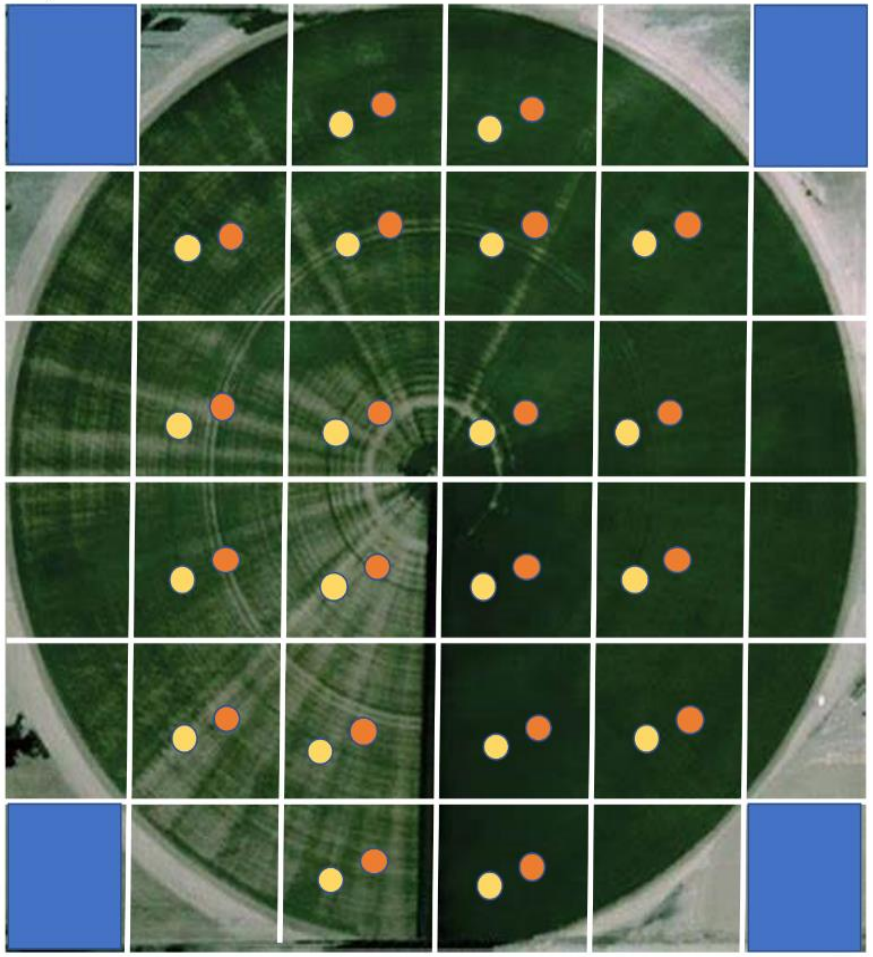

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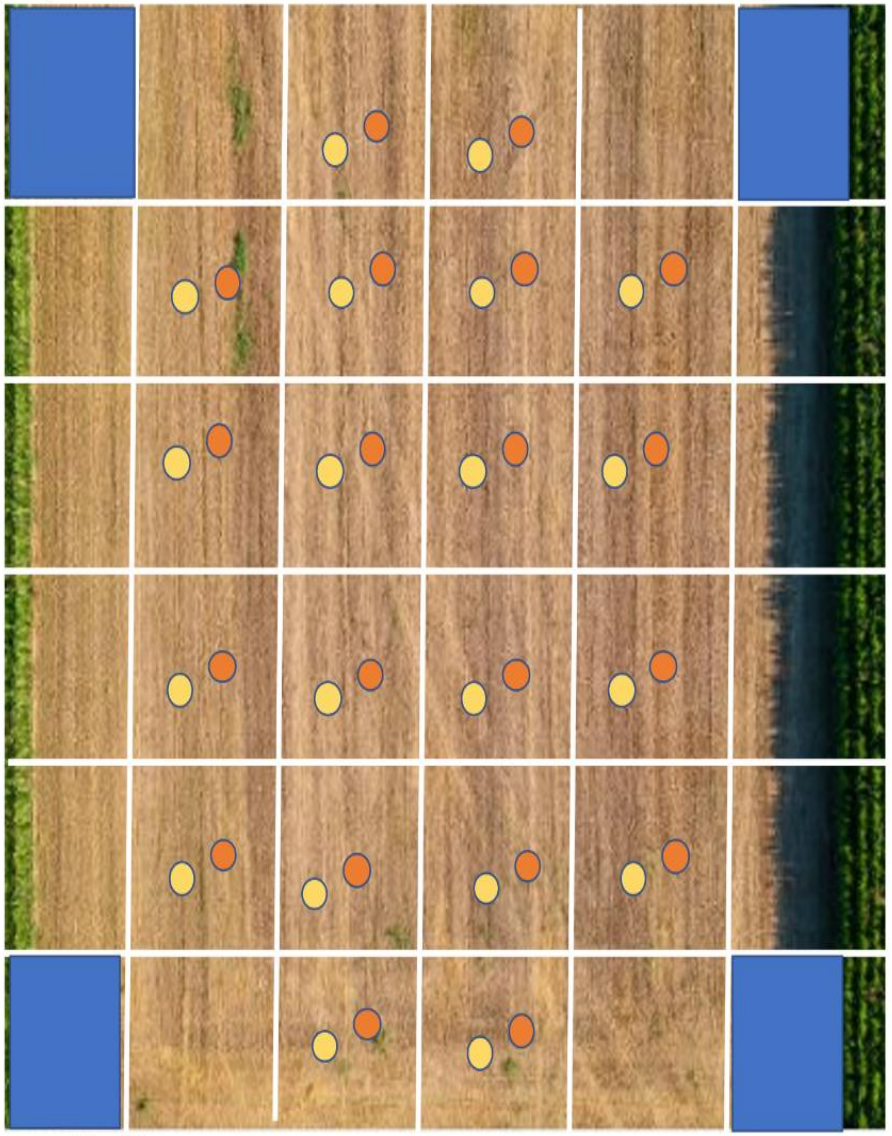
FIGURE 3
GROUP 2

Sampling at 20 increments per Decision Units (Dus)

Group	# of Fields	# of acres	# of field to sample
1	9	794	2
2	5	451	1
3	7	786	0

Objective: Obtain 20 increments per DU per depth level

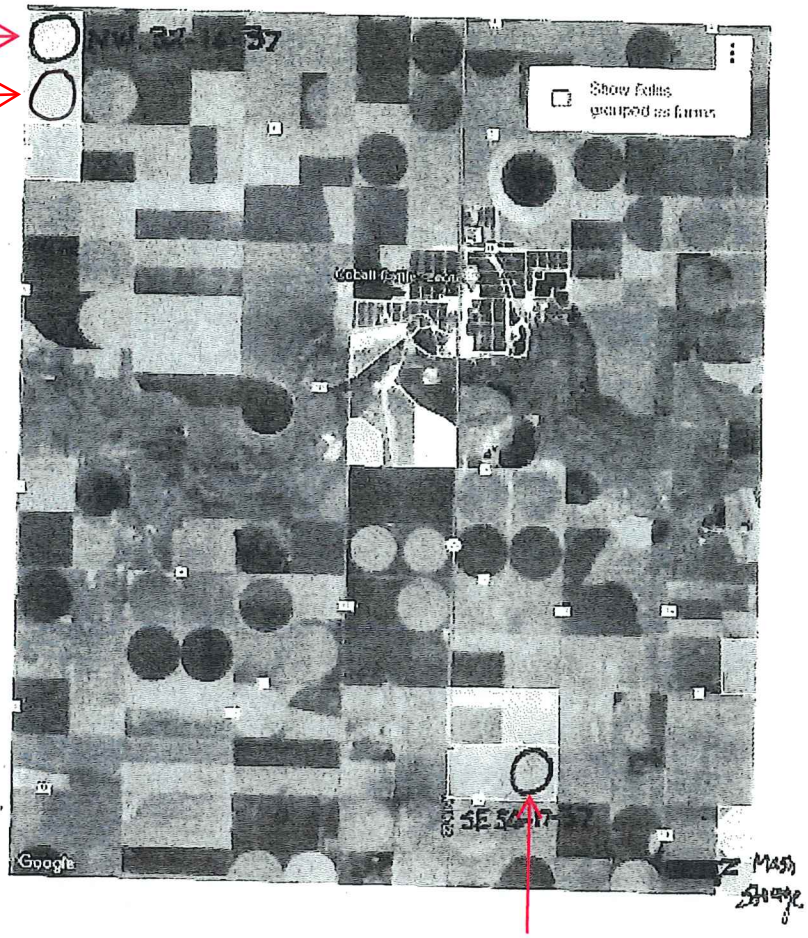
- Sample 6" surface and 2 centimeter (cm) soil core for random increments
- First surface increment is determined randomly, and subsequent increments are collected in the same relative location within each grid. This action is repeated for 20 soil core samples.
  - 20 surface increments at 0-6"
  - 20 soil core increments at 0-30"
- After collecting 20 surface increments and 20 soil cores, the soil cores will be subsampled and separated by depth.
- Each set of 20 samples will be composited separately into a three main samples from which 3 representative subsamples will be sent for analysis.
  - 3 subsamples at surface"
  - 3 subsamples at 10-20"
  - 3 subsamples at 20-30"



MAP

NW 32-16-37

SW 32-16-37



SE 36-17-37